



THE STATE OF UTAH  
OFFICE OF STATE ENGINEER

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STATE ENGINEER

SALT LAKE CITY

September 21, 1937

REL: COAL CREEK DISTRIBUTION

Memorandum for Office Study only, by REID JERMAN

August 21, 1937, while in Cedar City, I conferred with Water Commissioner, J. T. Leigh with reference to the distribution problems on Coal Creek and find that up to this date the water supply has been much better than the past few years, and Mr. Leigh has had very little trouble. On said date the flow of the creek was sufficient to furnish approximately 50 per cent of the primary rights. I went over the irrigation system with Mr. Leigh, paying special attention to the diversion and control works at the head of the various canals. It was noted that the weirs were constructed of lumber and were of the rectangular type. In most cases the weir pools above the crest had grown until the contraction was insufficient which resulted in a velocity of approach over the weirs. However, this was more or less general and the measurements being made all carried about the same correction. I suggested to Mr. Leigh how these pools may be constructed with very little work in such a way that would prevent this velocity of approach. Practically all of the weirs are built so the crest board can be taken from the box except when the measurements are being made. This is done for the reason that the streams carry such a large amount of debris which renders the weirs useless in a very few hours if the crest is left in place.

I metered the quantity of water flowing in the creek at the old Hunter ditch diversion which gave a flow of 4.75 sec. ft. This same stream was measured about 100 ft. below the highway No. 91 bridge over Coal creek which gave a flow of 4.65. These measurements were both taken in the creek bed which was very irregular. I also measured the City and West Field ditch at its head which gave a flow of 5.49 sec. ft. Before making the measurement last above referred to, I asked Mr. Leigh to make the measurement as he would in making his regular rounds. His measurement showed approximately .25 of a sec. ft. less in this ditch than was metered. This, as above noted, was because of the velocity of approach through the weir pool.

As this time the South Field City and the West Field ditches all divert approximately a mile above Cedar City and at a point above the old mill, the diversion dam is of rock and timber. In seasons when the flow of the creek is normal, all the water is diverted at this dam

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divider works very unsatisfactorily because of a large quantity of debris carried down the ditch. Approximately 100 yards below this divider in the Northwest Field ditch is a lumber rectangular weir in fair shape. Approximately 400 ft. below the diversion dam the Union and the North Field ditch water is divided. The Union water being diverted to the north and the North Field water in a southerly direction. In each of these ditches, there are wooden rectangular weirs in fair shape, but are in need of some repair. At this time the water is running under the Union ditch weir.

Mr. Leigh advises me that there is not a copy of the decree adjudicating the water of the Coal creek system at Cedar City, and I advised him that I would attempt to furnish him a copy for his use in distributing the water.

A copy of the amended decree was forwarded to Mr. Leigh after I returned to the office.

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